

REMARKS

This Amendment is responsive to the Office Action mailed August 4, 2005. Claims 1-16, 25, 29-30, and 33-34 have been cancelled herein. Claims 17-24, 26-28 and 31-32 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

INFORMATION DISCLOSURE STATEMENT

The undersigned gratefully acknowledges the Examiner's consideration of the references listed on the IDS filed on April 22, 2004.

DRAWINGS

The undersigned also gratefully acknowledges the acceptance of the drawings filed along with this application on September 5, 2003.

CLAIM OBJECTION

Claim 23 is objected to because of an informality. Applicants have amended Claim 23 per the Examiner's suggestion.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-7, 9-11, 15-17, 20-23, and 33-34 were rejected under 35 U.S.C. § 102(b) as being anticipated by Anderson et al. (EP Pat. No. 1 081 974 A2). For the

following reasons, reconsideration and withdrawal of this rejection is respectfully requested.

Initially, it will be noted that independent Claim 17 has been amended to more positively recite that the ground base component includes:

a plurality of directional antenna stations disposed at pre-determined locations about said geographic region for transmitting directional radio frequency (RF) beacon signals in differing directions from a plurality of locations within said geographic region, said mobile platform using said beacon signals to establish a communications link with one of said directional antennas;

It is respectfully submitted that the limitations of Claim 17, as it stands amended, are not shown or suggested by Anderson et al.

Anderson et al. appears to be directed towards a system for facilitating handoffs in a wireless system, but does not involve or suggest the use of a plurality of directional antennas that communicate beacon signals to the wireless unit. With the system of the present invention, a mobile platform operating in the geographic region initially requires the beacon signals from various ones of the directional antennas to establish an initial communications link with at least one of the directional antennas. This system also makes use of directional antennas so that the same frequency can be used with two or more of the directional antennas without causing interference or jamming problems relative to the directional antennas.

Anderson et al. appears to be directed towards a wireless system that simply monitors various factors of a wireless communications link that is moving out of one cell and into a different cell, and determining at what point an optimum handoff should be made from one cell to a different cell. With the system of the present invention, the

mobile platform may not necessarily be leaving the coverage area of one directional antenna, but the system is sufficiently sophisticated to determine if a better communications link can be established with a different directional antenna, based on one or more factors effecting the mobile platform (e.g., heading, speed, location, and loading of various directional antennas at any given time). With the present invention, an important parameter is to provide the optimum communication link between the mobile platform and the at least one of the directional antennas while minimizing the number of handoffs that occur over a given period of time. Minimizing the number of handoffs does not appear to be a consideration, let alone an important consideration, in Anderson et al.

For these reasons, reconsideration and withdrawal of the rejection of independent Claim 17 is respectfully requested. Since Claim 17 is believed to be in allowable form, it is also believed that the rejections concerning dependent Claims 20-23 have been rendered moot.

REJECTION UNDER 35 U.S.C. § 103

Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. in view of Torre et al. (U.S. Pat. No. 6,583,454). Claims 12 and 24 were rejected as being unpatentable over Anderson et al. in view of Willhoff (U.S. Pat. No. 5,887,262). Claim 13 was rejected as being unpatentable over Anderson et al. in view of Thompson (U.S. Application Serial No. 2001/0036843). Claims 14, 26, 27, 29, and 32 were rejected as being unpatentable over Anderson et al. in view of Ballai (U.S. Application Serial No. 2004/0023640). Claims 31 and 32 were rejected as being

unpatentable over Anderson et al. in view of Ballai in further view of Willhoff. Claim 28 was rejected as being unpatentable over Anderson et al. in view of Ballai in further view of Torre et al. Claims 18 and 19 were rejected as being unpatentable over Anderson et al. in view of Hajimiri et al. (U.S. Pat. No. 6,917,815). For the following reasons, reconsideration and withdrawal of these rejections is respectfully requested.

Inasmuch as Claims 8, 12-14, 29, and 30 have been cancelled, the rejections relative thereto now stand moot.

Amendments made to independent Claim 17 have already been addressed in the discussion regarding the rejection under 35 U.S.C. § 102 above, and Applicants believed that it is now patentable and in condition for allowance. In addition, as Claims 18, 19 and 24 depend on amended dependent Claim 17, Applicants respectfully submit that these claims are also patentable and in condition for allowance.

The rejection to Claims 26, 27, 31, and 32 based on Anderson et al. in view of Ballai is respectfully traversed in view of the amendments made to independent Claim 26, which has been amended along lines somewhat similar to independent Claim 17 to more positively recite:

a) using a plurality of ground-based, directional antennas, each being disposed at an associated antenna station, each disposed at fixed locations within the geographic area, to each transmit a directional beam signal;

* * *

c) using said control system to communicate with each of said antenna stations and to monitor at least a plurality of speed of travel, direction of travel of said mobile platform, and loading of each of said directional antennas within said geographic region;

Ballai appears to be directed towards a system in which access points generate beacon signals used by other access points. Paragraph [0012] of Ballai discusses this

process. However, this is different from the invention of the present application, in which the directional antennas of each antenna station send beacon signals directly to the mobile platform to assist the mobile platform in initially acquiring a communications link with at least one of the directional antennas. Thereafter, the control system determines when to drop a communications link with a given directional antenna and when to establish a new communications link with a different directional antenna, based on the various factors cited in amended Claim 26.

Moreover, there appears to be no suggestion in Ballai or Anderson et al. of combining the teachings of these two references, as done by the Examiner. Ballai makes no mention of managing a communications link in a manner that minimizes the number of times a communications link is broken and then remade. Similarly, Anderson et al. does not disclose or suggest the desirability, let alone the need, for using beacon signals with its system. In fact, the use of any type of beacon signals in the Anderson et al. system would appear to be superfluous.

In view of these considerations, it is respectfully requested that the obviousness rejection of independent Claim 26 be reconsidered and withdrawn by the Examiner. Since Claim 26 is believed to be in allowable form, it is also believed that the rejections concerning dependent Claims 27, 29, 31 and 32 have been rendered moot.

Accordingly, in view of the amendments made to the independent claims of the application, it is believed that all of the rejections regarding the dependent claims have been rendered moot.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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